

From: [Rauscher, Jon](#)
To: [Shewmake, Kenneth](#)
Cc: [Mueller, Brian](#); [Khoury, Ghassan](#); [Turner, Philip](#)
Subject: RE: Need some HHRA advice and everyone is out or working flexiplace.
Date: Friday, June 06, 2014 3:04:14 PM
Attachments: [image001.png](#)
[image002.png](#)

I would recommend your option #2 – write a separate memo for the HHRA.

The risk assessment can serve as the basis for the memo. The risk assessment alone may not be sufficient to provide the documentation for the PRM. Adding a paragraph to the ecorisk SMDP might be confusing.

Looks like you have a good basis to do option #2.

From: Shewmake, Kenneth
Sent: Friday, June 06, 2014 2:40 PM
To: Khoury, Ghassan; Rauscher, Jon; Turner, Philip
Cc: Mueller, Brian
Subject: Need some HHRA advice and everyone is out or working flexiplace.

To any risk assessors working flexiplace who would like to offer an opinion on a HHRA question.

I am working on Falcon Refinery. The PRP claims that they do not have money to continue the cleanup without a loan and they want to use the barge dock portion of the site (AOC-4) as collateral for a loan. The bank will not loan money without assurances that this portion of the site will not require remediation. This area is being evaluated as a separate AOC and the risk assessment for this AOC has been completed. I wrote a draft SMDP memo documenting the decision on eco risk. It is attached if you would like to see it.

Here is my question. Is there an equivalent way of documenting a decision for the HHRA? We need to do this quickly if the loan is going to go through, so we need to produce something documenting a decision before producing a ROD for the rest of the site.

I think the options are the following.

1. Add a paragraph or 2 to the SMDP memo discussing the results of the HHRA.
2. Produce a separate memo for HHRA.
3. Use the Risk assessment as a way of documenting the decision.

I have copied and pasted the last page of the HHRA report for AOC4. I think it is a good summary and I would use it almost as is if I need to write a memo for the HHRA. The site is an industrial area. Future use of the site is expected to remain industrial. The community is on city water and the closest private well is about ½ mile away.

Receptors identified for AOC-4 include the resident adult, resident child, and construction worker. Site workers (i.e., landscapers/maintenance workers) and trespassers may also contact AOC-4. However, these receptors are expected to have relatively low contact with the area. The residential and construction worker exposure scenario represents conservative exposure scenarios that would account for all other expected receptor contact with the site. Media of concern for AOC-4 include surface soil, subsurface soil, and ground water. Only one ground water sample was collected within AOC-4. As a result, ground water was evaluated qualitatively. Specific exposure pathways evaluated in the AOC-4 HHRA are presented in Figure 4.



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The following table presents a summary of the HHRA results. The results indicate that there are no human health concerns for exposure to AOC-4. The HHRA only evaluated potential resident adult and child exposure and construction worker exposure to soil in AOC-4. Other potential receptors may contact these media. These receptors include landscapers/maintenance workers and trespassers. These workers and trespassers would be expected to visit the site infrequently at contact rates lower than the resident or construction worker. The evaluation of a residential and construction worker exposure represents a receptor that is expected to have higher contact with these media. Therefore, the conclusion that there are no human health concerns for residential or construction worker exposure also applies to any other receptors who may visit AOC-4. Ground water was evaluated qualitatively because only one sample result is available for AOC-4. The maximum detected concentration of dissolved arsenic (60.8 µg/L) exceeds both the arsenic tap water RSL (0.045 µg/L) and the MCL (10 µg/L). The maximum detected arsenic concentration is approximately three orders of magnitude higher than the tap water RSL, which would result in carcinogenic risk levels above the EPA acceptable risk range. However, one sample result is not representative of typical exposure to ground water as a tap water source. In conclusion, the HHRA did not reveal potential concerns for human health exposure at AOC-4.

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